

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/441,242A

TIME: 09:30:11

Input Set : A:\8666008999.txt

Output Set: N:\CRF3\02262002\I441242A.raw

```
3 <110> APPLICANT: Russo, Giandomenico
              Croce, Carlo
      6 <120> TITLE OF INVENTION: TCl-1 Gene and Protein and Related Methods and Compositions
      8 <130> FILE REFERENCE: 8666-008
     10 <140> CURRENT APPLICATION NUMBER: 09/441,242A
     11 <141> CURRENT FILING DATE: 1999-11-16
     13 <150> PRIOR APPLICATION NUMBER: 08/330,272
     14 <151> PRIOR FILING DATE: 1994-10-07
     16 <160> NUMBER OF SEQ ID NOS: 12
     18 <170> SOFTWARE: PatentIn version 3.0
     20 <210> SEQ ID NO: 1
     21 <211> LENGTH: 1324
     22 <212> TYPE: DNA
C--> 23 <213> ORGANISM: Artificial
     25 <220> FEATURE:
     26 <223> OTHER INFORMATION: Description of Artificial Sequence: cDNA sequence of TCL-1
     28 <221> NAME/KEY: CDS
     29 <222> LOCATION: (49)..(387)
     31 <400> SEQUENCE: 1
     32 cttgagagge tetggetett gettettagg eggeeegagg aegeeatg gee gag tge
                                                                               57
     33
                                                              Ala Glu Cys
     34
     35 ccg aca ctc ggg gag gca gtc acc gac cac ccg gac cgc ctg tgg gcc
                                                                              105
     36 Pro Thr Leu Gly Glu Ala Val Thr Asp His Pro Asp Arg Leu Trp Ala
                                10
     38 tgg gag aag ttc gtg tat ttg gac gag aag cag cac gcc tgg ctg ccc
                                                                              153
     39 Trp Glu Lys Phe Val Tyr Leu Asp Glu Lys Gln His Ala Trp Leu Pro
     41 tta acc atc gag ata aag gat agg tta cag tta cgg gtg ctc ttg cgt
                                                                              201
     42 Leu Thr Ile Glu Ile Lys Asp Arg Leu Gln Leu Arg Val Leu Leu Arg
     43
                        40
                                            45
     44 cgg gaa gac gtc gtc ctg ggg agg cct atg acc ccc.acc cag ata ggc
                                                                              249
     45 Arg Glu Asp Val Val Leu Gly Arg Pro Met Thr Pro Thr Gln Ile Gly
                    55
                                        60
     47 cca age ctg ctg cct atc atg tgg cag ctc tac cct gat gga cga tac
                                                                              297
     48 Pro Ser Leu Leu Pro Ile Met Trp Gln Leu Tyr Pro Asp Gly Arg Tyr
                                    75
     50 cga tcc tca gac tcc agt ttc tgg cgc tta gtg tac cac atc aag att
                                                                              345
     51 Arg Ser Ser Asp Ser Ser Phe Trp Arg Leu Val Tyr His Ile Lys Ile
            85
     53 gac ggc gtg gag gac atg ctt ctc gag ctg ctg cca gat gac
                                                                              387
     54 Asp Gly Val Glu Asp Met Leu Leu Glu Leu Pro Asp Asp
     55 100
                            105
```

RAW SEQUENCE LISTING DATE: 02/26/2002 PATENT APPLICATION: US/09/441,242A TIME: 09:30:11

Input Set : A:\8666008999.txt

Output Set: N:\CRF3\02262002\I441242A.raw

```
56 tgatgtatgg tcttggcagc acctgtctcc tttcacccca gggcctgagc ctggccaqcc
                                                                              447
     57 tacaatgggg atgttgtgtt tctgttcacc ttcgtttact atgcctgtgt cttctccacc
                                                                              507
     58 acgctggggt ctggggaggaa tggacagaca gaggatgagc tctacccagg gcctgcagga
                                                                              567
     59 cctgcctgta gcccactctg ctcgccttag cactaccact cctgccaagg aggattccat
                                                                              627
     60 ttggcagage ttettecagg tgeecageta tacetgtgee teggetttte teagetggat
                                                                              687
     61 gatggtcttc agcctctttc tgtcccttct gtccctcaca gcactagtat ttcatgttgc
                                                                              747
     62 acacccactc agctccgtga acttgtgaga acacagccga ttcacctgag caggacctct
                                                                              807
     63 gaaaccctgg accagtggtc tcacatggtg ctacgcctgc atgtaaacac gcctgcaaac
                                                                              867
     64 gctgcctgcc ggtaaacacg cctgcaaacg ctgcctgccc gtaaacacgc ctgcaaacqc
                                                                              927
     65 tgcctgccca cacaggttca cgtgcagctc aaggaaaggc ctgaaaggag cccttatctg
                                                                              987
     66 tgctcaggac tcagaagcct ctgggtcagt ggtccacatc ccgggacgca gcaggaggcc
                                                                             1047
     67 aggeeggega geeetgtgga tgageeetea gaaceettgg ettgeeeacg tggaaaaggg
                                                                             1107
     68 atagaggttg ggtttccccc ctttatagat ggtcacgcac ctgggtgtta caaagttgta
                                                                             1167
     69 tgtggcatga atactttttg taatgattga ttaaatgcaa gatagtttat ctaacttcgt
                                                                             1227
     70 gegeaateag ettetateet tgaettagat tetggtggag agaagtgaga ataggeagee
                                                                             1287
     71 cccaaataaa aaatattcat ggaaaaaaaa aaaaaaa
                                                                             1324
     73 <210> SEQ ID NO: 2
     74 <211> LENGTH: 113
     75 <212> TYPE: PRT
C--> 76 <213> ORGANISM: Artificial
     78 <220> FEATURE:
     79 <223> OTHER INFORMATION: Description of Artificial Sequence: cDNA sequence of TCL-1
     81 <400> SEQUENCE: 2
     82 Ala Glu Cys Pro Thr Leu Gly Glu Ala Val Thr Asp His Pro Asp Arg
     83 1
                                            10
     85 Leu Trp Ala Trp Glu Lys Phe Val Tyr Leu Asp Glu Lys Gln His Ala
                                        25
     88 Trp Leu Pro Leu Thr Ile Glu Ile Lys Asp Arg Leu Gln Leu Arg Val
     91 Leu Leu Arg Arg Glu Asp Val Val Leu Gly Arg Pro Met Thr Pro Thr
                                55
     94 Gln Ile Gly Pro Ser Leu Leu Pro Ile Met Trp Gln Leu Tyr Pro Asp
                            70
                                                 75
     97 Gly Arg Tyr Arg Ser Ser Asp Ser Ser Phe Trp Arg Leu Val Tyr His
                        85
                                            90
     100 Ile Lys Ile Asp Gly Val Glu Asp Met Leu Leu Glu Leu Leu Pro Asp
     101
                     100
     103 Asp
     106 <210> SEQ ID NO: 3
     107 <211> LENGTH: 560
     108 <212> TYPE: DNA
C--> 109 <213> ORGANISM: Artificial
     111 <220> FEATURE:
     112 <223> OTHER INFORMATION: Description of Artificial Sequence: genomic sequence of TCL-
     114 <400> SEQUENCE: 3
     115 gtcgactgtg agttcccagc agaggcccag agtcccggtc cggcagccga gggaagcggg
                                                                                60
     116 ggggtcttcc agaagaagaa agggccaagg tcaccccggt gcctctccag cagcagcaga
                                                                               120
     117 gggcggcggt cggtgtcgct gctggccggg gcctcgagga aggcgcgggc cagctggggc
                                                                               180
```

118 cgggtctqcq ttcccaqqaq ctqccaccqt tccaqqqaqc aaqtcaqqcc qqqacqttaq

240

DATE: 02/26/2002

TIME: 09:30:11

Input Set : A:\8666008999.txt Output Set: N:\CRF3\02262002\I441242A.raw 119 cgcctgcgcg ggaccctcac ttgccaccaa ggaccccaca aaccccgccc catccttagc 300 120 gcctgcgcgg gaccctcact tgccaccaag acccccacaa accccgcccc atcctgcctt 360 121 acgccccgcc ccaaggtcgt tctcccgacc cgqqqtcccq ccccaagacc gtcctcccqc 420 122 cccgccgctt ggtggcggcc gcatgctgcc cggatataaa gggtcggccc cacatcccag 480 123 ggaccagcga gcggccttga gaggctctgg ctcttgcttc ttaggcggcc cgaggacgcc 540 124 atggccgagt gcccgacact 560 126 <210> SEQ ID NO: 4 127 <211> LENGTH: 108 128 <212> TYPE: PRT C--> 129 <213> ORGANISM: Artificial 131 <220> FEATURE: 132 <223> OTHER INFORMATION: Description of Artificial Sequence: MTCP1 protein 134 <221> NAME/KEY: SITE 135 <222> LOCATION: 108 136 <223> OTHER INFORMATION: Xaa = any amino acid 138 <400> SEQUENCE: 4 139 Met Ala Gly Glu Asp Val Gly Ala Pro Pro Asp His Leu Trp Val His 140 1 141 Gln Glu Gly Ile Tyr Arg Asp Glu Tyr Gln Arg Thr Trp Val Ala Val 143 Val Glu Glu Glu Thr Ser Phe Leu Arg Ala Arg Val Gln Gln Ile Gln 35 40 145 Val Pro Leu Gly Asp Ala Ala Arg Pro Ser His Leu Leu Thr Ser Gln 55 147 Leu Pro Leu Met Trp Gln Leu Tyr Pro Glu Glu Arg Tyr Met Asp Asn 148 65 149 Asn Ser Arg Leu Trp Gln Ile Gln His His Leu Met Val Arg Gly Val 150 85 W--> 151 Gln Glu Leu Leu Lys Leu Leu Pro Asp Asp Xaa 152 100 153 <210> SEQ ID NO: 5 154 <211> LENGTH: 4922 155 <212> TYPE: DNA C--> 156 <213> ORGANISM: Artificial 158 <220> FEATURE: 159 <223> OTHER INFORMATION: Description of Artificial Sequence: genomic DNA of TCL-1 W--> 161 < 221 NAME/KEY: mod base 162 <222> LOCATION: 373, 688, 1155, 1214, 1283, 1334, 1335, 2153, 2180, 2201, 2224, 2225, 2279, 2501, 2523, 2545, 2553, 2566, 2592, 2599, 3955, 3959, 163 3975, 3976, 3982, 3984, 3987, 3990, 3992, 4001, 4027, 4029, 4072, 164 4194, 4372, 4539, 4543, 4584, 4610, 4620, 4626, 4632, 4641, 4657, 165 4669, 4673, 4674, 4686, 4688, 4690, 4691, 4698, 4709, 4715, 4734, 166 4736, 4746, 4755, 4777, 4778, 4783, 4784, 4789, 4792, 4804, 4812, 167 168 4814, 4824, 4825, 4830, 4835, 4840, 4841, 4851, 4856, 4858, 4862, 4869, 4890, 4891, 4897, 4901, 4903, 4906, 4914 170 <223> OTHER INFORMATION: n = a, t, g or c 172 <400> SEQUENCE: 5

173 gtcgacttgt gaktyccmag magaggccca gaagtcccgg tccggcaaag cggaggggaa

174 gcggggggg tcttccaaga agaagaaagg gcccaaggtt caacccccgg tgccttctcc

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/441,242A

60

RAW SEQUENCE LISTING DATE: 02/26/2002 PATENT APPLICATION: US/09/441,242A TIME: 09:30:11

Input Set : A:\8666008999.txt

Output Set: N:\CRF3\02262002\I441242A.raw

	175	agcagcaagc	aagagggcgg	cgggtcggtt	gtcgctgctg	gccggggccc	tccgaggaaa	180
	176	ggcgcggrcc	agctggggcc	gggtctgcgt	tcccaggagc	tgccaccgtt	ccagggagca	240
	177	agtcaggccg	ggacgttagc	gcctgcgcgg	gaccctcact	tgccaccaag	rmccccacaa	300
	178	accccgcccc	atcctgyctt	acgccccgcc	ccaaggtcgg	ttctccccga	cccgggggtc	360
W>	179	ccgcccccaa	ggnccgtcct	cccgcccc	gccgsttggt	ggcggccgca	tgctgcccgg	420
	180	atataaaggg	tcggccccac	atcccaggga	ccagcgagcg	gccttgagag	gctctggctc	480
	181	ttgcttctta	ggcggcccga	ggacgccatg	gccgagtgcc	cgacactcgg	ggaggcagtc	540
	182	accgaccacc	cggaccgcct	gtgggcctgg	gagaagttcg	tgtatttgga	cgagaagcag	600
	183	macgcctgcc	tgcccttaac	catcgaggta	caaccacctt	tggagcggat	ggcgargcag	660
W>	184	caggggcasc	ccctgggagc	ttgggatncc	ctaggaaggg	cgaggactca	aggagcactc	720
	185	actatggggc	agggaggatc	ccccacagat	kaagccactt	ttggagccgg	sctctkgagg	780
	186	gatgaatagg	agttcctcca	ggcagggaag	aagggtggga	aaaccccaaa	ggaatgtcgg	840
	187	tcaaaggggt	ggacccagtg	cctgtggagt	gtgactataa	tgttgactac	agcaggcatt	900
	188	ttctgggctt	cggggtccta	atccttaaaa	atgggtatct	ctaagtgact	catccatatg	960
				caggtgggtc	_	-	_	1020
				caggcataac	_			1080
				ctttatttaa		_		1140
				ycaatattga				1200
			-	tttgttaaag	_	_		1260
				canaaaatgt				1320
M>				tattagaaca			_	1380
				agatgggaaa				1440
				atggggttgg				1500
		_		atttttaaa	=		-	1560
				aatttgaaga				1620
				cttccctyca				1680
				catgcyccmc				1740
				gaaaaggcca			_	1800
				awacagggtc				1860
				ctgcctctgc				1920
				aaagtgtgcc				1980
				ggcccagcca				2040
T-7 S				cagtgatgac				2100
				ggagggattc				2160
				ccctgtcctt gggaagacgt				2220 2280
,,,				ctatcatgtg				2340
				gcttagtgta				2400
				gtttcccctc				2460
W>				agcattwaaa				2520
				aaganagatc				2520
				taaccgcagg				2640
,, ,				caktctccaa				2700
				gggaagscsc				2760
				ctctctctct				2820
				tgactgatgt				2880
				cagaaagaaa				2940
				atctgagggt				3000
				ttcgggagcc				3060
						, , , , , , , , , ,		

RAW SEQUENCE LISTING DATE: 02/26/2002
PATENT APPLICATION: US/09/441,242A TIME: 09:30:11

Input Set : A:\8666008999.txt

Output Set: N:\CRF3\02262002\I441242A.raw

```
224 cagctgctca tatctataaa gtacttcaca agtttcagct ggcactttca ttttaccatt
                                                                              3120
     225 gctttttttt tctttgggag atgagtctgg ctctgtggcc caggctagag tgtagtgggt
                                                                              3180
     226 gcaatctcag ctcactgaaa gctctgcctc ccgggttcac accattctcc tgcctcagcc
                                                                              3240
     227 ctcggagtag ctgggactac aggcgcccgc caccacacct ggctaatttt ttttttttw
                                                                              3300
     228 ttwtwttttt tagtagagme ggggtttcac cgtgttagcc aggatggtct cgatctcctg
                                                                              3360
     229 acctcatgat ctgcccgcct cggcctccca aagtgctggg attacaggca tgagccacca.
                                                                              3420
     230 cgtccggcct taccattgct ttattaaata agcactggtg cttgattata tcagctgagc
                                                                              3480
     231 cagatattag atacgctatt gagttttgrg gaaataagag taccaaaact cagaaatgag
                                                                              3540
     232 ttgaagtata gtgacatctt cagattacag acccaggtgt cagaatttgc cttggctcag
                                                                              3600
     233 aaggeetetg ggggeeatee etgaceaeta ggetteeeae ttagaeetge teeageagea
                                                                              3660
     234 ccacccotcg scactgoctg gtcctttcct tcacccttga ttctgtcttc ttttgtcctt
                                                                              3720
     235 ctccaggtct tggyagcacc tgtctccttt caccccaggg cctgagcctg gccagcctac
                                                                              3780
     236 aatggggatg ttgtgtttct gttcaccttc gtttactatg bctgtgtctt ctccaccacg
                                                                              3840
     237 ctggggtctg ggaggaatgg acagacagag gatgagctct acccrgggcc tgsaggacct
                                                                              3900
W--> 238 gtcctgtagm ccactctgct cgccttagsa cctacsactc cwrccgasga ggatnccant
                                                                              3960
W--> 239 tggaagagct tcttnnaggt gncnaanaan anctgtgcgt nggcttttct cagctggatg
                                                                              4020
W--> 240 atggtentna gcetetttet gteeettetg teeetcacag cactagtatt tnatgttgca
                                                                              4080
     241 cacccactca gctccgtgaa tttgtgagaa cacaaccgat tcacctgagc aggacctctg
                                                                              4140
W--> 242 aaaccctgga ccagtggtct cacatggtgc tacgcctgca tgtaaacacg cctncaaacg
                                                                              4200
     243 ctgcctgcck gtraacacgm sksyrmacag stgmswrccc gtaaacacgc ctgcaaacgc
     244 tgcctgccca cacaggttca cgtgcagctc aaggaaagrm ctgaaarrag cccttatctg
                                                                              4320
                                                                              4380
W--> 245 tgctcaggac tcagaagcct ctgggtcagt ggtccacatc ccgggacgca gnaggaggcc
     246 aggccggcga gccctgtgga tgagccctca gaacccttgg gttgcccacg tggaaaaggg
                                                                              4440
     247 atagaggttg ggtttccccc cttttataga tggtcacgca cctgggtgtt acaaagttgt
                                                                              4500
W--> 248 atgtggcatg aatacttgnt gtnatgattg attaaatgca agatagttta tctaacttcg
                                                                              4560
W--> 249 tgcggaatca gcttctatcc ttgncttaga ttctggtgga qagaagtgan aataggcagn
                                                                              4620
W--> 250 ccccanataa anaatattca ngqqatttat tttattnttc cttttqqqnq atnnqqqact
                                                                              4680
W--> 251 acattninch neceeginta atecaatgni taaaneeeca gigtiettigg aggneniaeg
                                                                              4740
W--> 252 tegaanacea ttggngtang caaceteaaa atttttnngt tgnnaattne engtttteea
                                                                              4800
W--> 253 gagnecece enthetecat ettnnteeth geceneeth neetecenea ntecenangt
                                                                              4860
W--> 254 tnccctcgnc cccagtcagt tctttctccn nctttanccg ntnatntcac cagnttcttt
                                                                              4920
     255 ct
                                                                              4922
     257 <210> SEQ ID NO: 6
     258 <211> LENGTH: 20
     259 <212> TYPE: DNA
C--> 260 <213> ORGANISM: Artificial
     262 <220> FEATURE:
     263 <223> OTHER INFORMATION: Description of Artificial Sequence: p9A primer
     265 <400> SEQUENCE: 6
     266 tgctgccaga tgactgatgt
                                                                                20
     268 <210> SEQ ID NO: 7
     269 <211> LENGTH: 20
     270 <212> TYPE: DNA
C--> 271 <213> ORGANISM: Artificial
     273 <220> FEATURE:
     274 <223> OTHER INFORMATION: Description of Artificial Sequence: Rev III primer
     276 <400> SEQUENCE: 7
     277 caaatggaat cctccttggc
                                                                                20
     279 <210> SEQ ID NO: 8
```

Use of n and / or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to ensure a corresponding explanation is present in the <220> to <223> fields of each sequence using n or Xaa.

VERIFICATION SUMMARY DATE: 02/26/2002
PATENT APPLICATION: US/09/441,242A TIME: 09:30:12

Input Set : A:\8666008999.txt

Output Set: N:\CRF3\02262002\I441242A.raw

```
L:23 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:1
L:76 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:2
L:109 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:3
L:129 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:4
L:151 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:156 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:5
L:161 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:5
L:179 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:184 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:192 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:193 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:194 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:195 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:208 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:209 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:210 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:214 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:215 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:216 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:238 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:239 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:240 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:242 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:245 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:248 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:249 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:250 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:251 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:252 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:253 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:254 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:260 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:6
L:271 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:7
L:282 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:8
L:293 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:9
L:304 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:10
L:315 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:11
L:326 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:12
L:350 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
```